

SIMPLIFYING RADICAL EXPRESSIONS



BELL WORK

1) Simplify $\sqrt{200}$

2) Simplify $-3\sqrt{54}$

3) Find the x-intercept of $2x - 3y = 18$.

EXAMPLES: Simplify.

1) $\sqrt{a^2} =$ _____

2) $\sqrt{a^3} =$ _____

3) $\sqrt{a^4} =$ _____

4) $\sqrt{a^5} =$ _____

5) $\sqrt{a^6} =$ _____

6) $\sqrt{a^7} =$ _____

Do you see a pattern?

EXAMPLES: Use the pattern to simplify these expressions.

7) $\sqrt{a^{24}} =$ _____

8) $\sqrt{a^{31}} =$ _____

9) $\sqrt{a^{40}} =$ _____

10) $\sqrt{a^{47}} =$ _____

11) $\sqrt{a^{120}} =$ _____

12) $\sqrt{a^{101}} =$ _____

EXAMPLES: Simplify.

13) $\sqrt{144y^2} =$ _____

14) $\sqrt{81a^4b^6c^{10}} =$ _____

15) $\sqrt{24x^5} =$ _____

16) $\sqrt{75x^2y^3} =$ _____

17) $-\sqrt{128ab} =$ _____

18) $3a^2\sqrt{32a^{13}b^{14}} =$ _____